

Docket No. 4030B



IN THE UNITED STATES PATENT AND TRADE OFFICE

In re patent application of

Applicant: David Michael Glenn, et al.
Serial No.: 08/972,659
Filed: Nov. 18, 1997
For: METHOD FOR PROVIDING ENHANCED
PHOTOSYNTHESIS

RECEIVED

JUN 05 2007

TECH CENTER 1600/2900

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.:
Filing Date:

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each copy of a document enclosed that is not in the English language, an English language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) _____ Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.

- (b) _____ Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) X Within 3 months of the filing date or date of entry into the National Stage.

- (b) _____ Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 05-1070 for consideration of this Statement.

- (c) _____ After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

- (1) _____ The required certification is given below, or

- (2) _____ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or

- (3) _____ Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 05-1070.

- (d) _____ After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.

- (1) _____ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or

- (2) _____ Charge the fee set forth in 37 C.F.R. 1.17(I)(1) to Deposit Account No. 05-1070.


4. Certification (if applicable)

- (a) _____ The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) _____ The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

5. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account
No. 05-1070.

Respectfully Submitted,

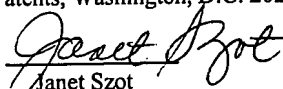

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CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being deposited on the below date with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: February 3, 1998


Janet Szot

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT & TRADEMARK OFFICE

ATTY DOCKET NO. 4030B

SERIAL NO. 08/972659

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

APPLICANT: David Michael Glenn, et al.

FILING DATE: Nov. 18, 1997

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REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Filing Date If Appropriate
	3,159,536	12/64	Marotta	167-12	
	3,235,451	1965	Odeneal	167-42	
	2,818,340	12/57	Goddin et al.	99-2	
	4,279,895	7/81	Carle	424/127;424/155	
	3,124,505	3/64	Doyle, et al.		
	4,632,936	12/86	Boase, et al.	514/465	
	2,948,632	8/60	Albert, et al.		
	5,122,518	6/92	Vrba	514/63	
	4,274,883	6/81	Lumbeck, et al.	106/308	
	3,964,649	6/76	Alexander	222/399	

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document number	Publication Date	Country or Patent Office	Class	Translation	
					Yes	No
	SU 1792257 A3	6/11/90	Soviet Union		X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	Driggers, B. F. "Experiments with Talc and Other Dusts Used Against Recently Hatched Larvae of the Oriental and Codling Moths," J. Econ. Ent., 22 327-334 (1929)
	Hunt, C.R., "Toxicity of Insecticide Dust Diluents and Carriers to Larvae of the Mexican Bean Beetle," J. Econ. Ent., 40 215-219 (1947)
	P. Alexander, J.A. Kitchener and H.V. A. Briscoe, "Inert Dust Insecticides," Parts I, II, and III, Ann. Appl. Biol., 31 143-159 (1944)
	W. Ebeling, R. F. Wagner "Rapid Desiccation of Drywood Termites with Inert Sorptive Dusts and Other Substances," J Econ. Ent., 52 190-207 (1959)
	M. Bar-Joseph, H. Frenkel "Spraying Citrus Plants with Kaolin Suspensions Reduces Colonization by the Spiraea Aphid." Crop Prot 2 371-374 (1983)
	J.S. Dhaliwal, "Effect of Rainfall and Kaolinite Spray on the Corn Aphid, Rhopalosiphum maidis (Fitch) Infesting Barley (Hordeum Vulgare Linn)," Forage Res. 5:155-157 (1979)
	A. Boyce, "Mortality of Rhagoletis Completa Cress. (Diptera:Trypetidae) Through Ingestion of Certain Solid Materials," J. Econ Ent 25 1053-1059 (1932)

Examiner

Date Considered

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 4030B	SERIAL NO.08/972659
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REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	5,414,954	5/95	Long	43/121	
	4,705,816	11/87	Pole	523/524	
	5,392,559	2/95	Long	43/52	
	5,480,638	1/96	Erwin	424/614	
	4,634,463	1/87	Ohsuga	71	
	5,186,935	2/93	Tucker	424/410	
	2,441,423	5/48	Elliott, et al.	252	
	3,227,657	1/66	Haden, Jr., et al.	252	
	3,346,507	10/67	Taulli	252	
	4,071,374	1/78	Minton	252	
	4,203,864	5/80	Sawyer, Jr.	252	
	4,382,868	5/83	House	252	
	5,393,461	2/95	Fillipova	252	
	5,455,220	10/95	Dedolph	71	

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	C. Richardson L. Glover, "Some Effects of Certain 'Inert' and Toxic Substances Upon the Twelve-Spotted Cucumber Beetle, <i>Diabrotica Duodecimpunctata</i> ," J Econ Ent 25 1176-1181 (1932)
	A. Farmer, "The Effects of Dust on Vegetation: A Review," Envir Pol 79 (1193) 63-75
	V. Wigglesworth, "Action of Inert Dusts on Insects," Nature 153 (1944) 493-494
	W. David, B. Gardiner, "Factors Influencing the Action of Dust Insecticides," Bul Ent Res. (1950) 41 1-61
	H. Kalmus, "Action of Inert Dusts on Insects," Nature 33 (1945) 188-189
	J. Kring, "Flight Behavior of Aphids," Ann Rev Ent 17 461-493 (1972)
	S. Chiu, "Toxicity Studies of So-Called 'Inert' Materials with the Bean Weevil, <i>Acanthoscelides Obtectus</i> (Say) J Econ Ent 32 240-248 (1939)
	M. Baradas, B. Blad, N. Rosenberg, "Reflectant Induced Modification of Soybean Canopy Radiation Balance v. Longwave Radiation Balance," Agron J 68 848-852 (1976)

Examiner	Date Considered
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OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	G. Stanhill, S. Moreshet, M. Fuchs, "Effect of Increasing Foliage and Soil Reflectivity on the Yield and Water use Efficiency of Grain Sorghum," Agron J. 68 329-332 (1976)
	S. Moreshet, S. Cohen, Y. Fuchs, "Effect of Increasing Foliage Reflectance on Yield, Growth and Physiological Behavior of a Dryland Cotton Crop," Crop Sci 19 863-868 (1979)
	R. Yokomi, "A Preliminary Report of Reduced Infection by Spiroplasma Citri and Virescence in Whitewash-Treated Periwinkle," Phytopathology 71 914 (1981)
	D. Eveling, "Similar Effects of Suspensions of Copper Oxychloride and Kaolin on Sprayed Leaves," Ann Apply Biol. (1972) 70, 245-249
	J. Jack, J. Gilbert, "The Effect of Suspended Clay on Ciliate Population Growth Rates," Freshwater Biol (1993) 29, 385-394
	H. Uppal, S. Cheema, "Effect of Mulches and Kaolin Spray on Soil Temperature, Growth, Yield and Water Use of Barley," Ind J Agric Sci (1981) 51, 653-659
	D. Meador, "Reducing Russet on 'Golden Delicious' Apples with Silicon Dioxide Formulation Foliage Sprays," Hort Sci (1977) 12, 504-505
	T. Babu,, S. Hussaini, B. Satyanarayana, "Effect of Pre-Storage Seed Treatments on Adult Mortality, Oviposition and Development of Callosobruchus Chinensis L.(Bruchidae: Coleoptera) and the Viability of Mungbean (Vigna Radiata (L.) Wilczek) in India," Tropical Pest Mgt (1989) 35, 397-398
	T. Babu, S. Hussaini, M. Sriramulu, M. Siddiqui, "Effect of Inert Clay and Insect Growth Regulators on the development of Callosobruchus Chinesis L and the Germination of Mungbean Seed [Vigna Radiata(l) Wilczek]
	R. Campbell, J. Ephgrave, "Effect of Bentonite Clay on the Growth of Gaeumannomyces Graminis var. tritici and on Its Interactions with Antagonistic Bacteria," J Gen Microbiol (1983) 129, 771-777
	J. Desmarcheller, C. Ahern, "Insecticide-Retentive Carriers 2. Fenitrothion-Impregnated Clays," Aus J Exper Agric (1988) 28, 271-8
	R. Wagner, W. Ebeling, "Lethality of Inert Dust Materials to Kaloterms Minor Hagen and Their Role as Preventives in Structural Pest Control," J Econ Ent (1959) 52, 208-212
	J.S. Kennedy, C.O. Booth, W.J.S. Kershaw, "Host Finding by Aphids in the Field," Ann Appl. Biol (1961), 49, 1-21
	W.O. Cline, R.D. Milholland, "Root Dip Treatments for Controlling Blueberry Stem Blight Caused by Botryosphaeria Dothidea in Container-Grown Nursery Plants," Plant Disease 76, 136-138 (1992)
	J. Norman, "Development of Colletotrichum Gloeosporioides f. sp. clidemiae and Septoria passiflorae into Two Mycoherbicides with Extended Viability," Plant Disease 79, 1029-1032 (1995)
	S. K. Bhattacharyya, M. K. Basu, "Kaolin Powder as a Fungal Carrier," Appl. Envir. Microbio. 44, 751-753 (1982)

Examiner

Date Considered

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 4030B	SERIAL NO.08/972659
	APPLICANT:David Michael Glenn, et al.	
	FILING DATE: Nov. 18, 1997	Page 4 of 6

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	R. H. Daines, R.J. Lukens, E. Brennan, I. Leone, "Phytotoxity of Captan as Influenced by Formulation, Environment and Plant Factors," <i>Phytopathology</i> (1957) 47, 567-572
	FDF Yougn, JRM Thacker, DJ Curtis, "The Effects of Three Adjuvants On the Retention of Insecticide Formulations by Cabbage Leaves," <i>J Environ. Sci. Health</i> (1996) B31, 165-178
	G. Haukenes, BK Hjeltms, "Kinetics of the Binding of Immunoglobulins, Antibodies and Virus Haemagglutination Inhibitors to Kaolin," <i>Biologicals</i> (1991) 19, 31-35
	J. Han, "Use of Antitranspirant Epidermal Coatings for Plant Protection in China," <i>Plant Dis.</i> (1990) 74, 263-266
	O. Ziv, RA Frederiksen, "The Effect of Film-Forming Anti-Transpirants on Leaf Rust and Powdery Mildew Incidence on Wheat," <i>Plant Path</i> (1987) 36, 242-245
	C. Jacob, et al. "New Strategies In the Control of Major Leaf Disease of Hevea," <i>J Myco & Plant Path</i> (1195) 25, 120
	S. Marco, "Incidence of Nonpersistently Transmitted Viruses in Pepper Sprayed with Whitewash, Oil, and Insecticide, Alone or Combined," (1993) <i>Plant Dis</i> 77, 1119-1122
	Ziv, O. "Control of Septoria Leaf Blotch of Wheat and Powdery Mildew of Barley with Antitranspirant Epidermal Coating Materials," <i>Phytopar</i> (1983) 11, 33-38
	M. Kamp, "Control of Erysiphe Cichoracearum on Zinnia Elegans, with a Polymer-Based Antitranspirant," <i>Hort Sci</i> (1985) 20, 879-881
	J. Zekaria-Oren, Z Eyal, "Effect of Film-Forming Compounds on the Development of Leaf Rust on Wheat Seedlings," <i>Plant Dis</i> (1991) 75, 231-234
	A. Franck, M. Bar-Joseph, "Use of Netting and Whitewash Spray to Protect Papaya Plants Against Nivun Haamir (NH) Dieback Disease," <i>Crop Prot</i> (1992) 11, 525-528
	O. Ziv, "Effects of Bicarbonates and Film-Forming Polymers on Cucurbits Follar Diseases," <i>Plant Dis</i> (1992) 76, 513-517
	TC Helvey, "Insecticidal effect of Inert Solid Diluents," <i>Sci</i> (1952) 116, 631-632
	HG Guy, HF Dietz "Further Investigations with Japanese Beetle Repellents," <i>J Econ Ent</i> (1939) 32, 248-252
	C. Conceicao, A. Mexia, A. Barbosa, "Combined Effects of Silica Aerogels and Insect Growth Regulators Against Sitophilus Zeamais Motch Infestations," <i>Int Cong Ent pro</i> 1996
	MRGK Nair, "Structure of Waterproofing Epicuticular Layers in Insects In Relation to Inert Dust Action," <i>Indian J Ent</i> (1957) 19, 37-49
	BR Bartlett, "The Action of Certain 'Inert' Dust Materials on Parasitic Hymenoptera," <i>J Econ Ent</i> (1951) 44, 891-896
	GL Hockenyos, "Effect of Dusts on the Oriental Roach," <i>J Econ Ent</i> (1933) 26, 792-794

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 30B	SERIAL NO.08/972659
	APPLICANT: David Michael Glenn, et al.	
	FILING DATE: Nov. 18, 1997	Page 5 of 6

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	T. Hirano, M. Kiyota, I. Alga, "Physical Effects of Dust on Leaf Physiology of Cucumber and Kidney Bean Plants," <i>Environ Poll</i> (1995) 89, 255-261
	NKS Rao, "The Effects of Antitranspirants on Leaf Water Status, Stomatal Resistance and Yield in Tomato," <i>J Hort Sci</i> (1985) 60, 89-92
	DW Eveling MZ Elsa, "The Effects of a Cuticle-Damaging Kaolin On Herbicidal Phytotoxicity," <i>Weed Res</i> (1976) 16, 15-18
	S. Marco, O. Ziv, R. Cohen, "Suppression of Powdery Mildew in Squash by Applications of Whitewash, Clay and Antitranspirant Materials," <i>Phytopar</i> (1194) 22, 19-29
	SM Lipson, G. Stotzky, "Effect of Kaolinite on the Specific Infectivity of Reovirus," <i>FEMS Micro. Let.</i> 37, 83-88 (1986)
	S. Lavie, G. Storzky, "Adhesion of the Clay Minerals Montmorillonite, Kaolinite, and Attapulgitte reduces Respiration of <i>Histoplasma Capsulatum</i> ," <i>App & Envir Micro</i> (1986) 51, 65-73
	MS Rajan, KR Reddy, RS Rao, GHS Reddi, "Effect of Antitranspirants and Reflectants on Pod Yield of Rainfed Groundnut," <i>Agric Sci Dig</i> (1981) 1, 205-206
	W. Ebeling, RJ Pence, "Termites and Other Enemies of Wood," <i>Pest Cont Oct.</i> 1956, 46-64
	DW Eveling, A. Bataille, "The Effect of Deposits of Small Particles on the Resistance of Leaves and Petals to Water Loss," <i>Environ Poll</i> (1984) 36, 229-238
	M. Llewellyn, J. Ervaz, "Abrasive Dusts as a Mechanism for Aphid Control," <i>Ent. Exp. & Appl.</i> 26 (1979) 219-222
	M Swamiappan, S Jayaraj, KC Chandy, "Effect of Activated Kaolinic Clay on Some Storage Insects," <i>Z. Ang. Ent.</i> 80 (1976), 385-389
	D Permual, G. Le Patourel, "Laboratory Evaluation of Acid-Activated Kaolin to Protect Stored Paddy Against Infestation by Stored Product Insects," <i>J Stored Prod Res</i> 26, 149-153, 1990
	D Permual, G Le Patourel, "Small Bin Trials to Determine the Effectiveness of Acid-Activated Kaolin Against Four Species of Beetles Infesting Paddy Under Tropical Storage Conditions," <i>J Stored Prod Res.</i> 28, 193-199 (1992)
	DT Lowery, MK Sears, CS Harmer, "Control of Turnip Mosaic Virus of Rutabaga With Applications of Oil, Whitewash, and Insecticides," <i>J Econ Ent</i> (1990) 83, 2352-2356
	S. Marco, "Incidence of Aphid-Transmitted Virus Infections Reduced by Whitewash Sprays on Plants," <i>Amer. Phytop</i> (1986) 76, 1344-1348
	J. Basnizki, M. Evenari, "The Influence of a Reflectant on Leaf Temperature and Development of the Globe Artichoke (<i>Cynara scolymus</i> L.)," <i>J. Am Soc Hort Sci</i> 100, 109-112 (1975)
	EF Durner, TJ Gianfagna, "Interactions of Ethephon, Whitewashing, and Dormant Oil on Peach Pistil Growth, Hardiness and Yield," <i>Am Hort Sci</i> 27, 104-105 (1992)
	EF Durner, TJ Gianfagna, "Peach Pistil Growth Inhibition and Subsequent Bloom Delay by Midwinter Bud Whitewashing," <i>Am Hort Sci</i> 25, 1222-1224 (1990)
	WJ Lipton, "Temperatures and Net Heat Gain In Normal and Whitewashed Cantaloupe Fruits," <i>J. Amer. Hort. Sci.</i> 97, 242-244 (1972)

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 4030B	SERIAL NO.08/972,659
	APPLICANT: David Michael Glenn, et al.	
	FILING DATE: Nov. 18, 1997	Page 6 of 6

REFERENCE

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	WJ Lipton, F. Matoba, "Whitewashing to Prevent Sunburn of 'Crenshaw' Melons," Hortscience, 6, 343-345 (1971)
	WS Cranshaw, DJ Llewehr, "Effects of Colored Sprays on Aphid & Psyllid Colonization," SW Entomol 15, 205-209 (1990)
	S. Marco, "Possible Modes of Action of Whitewash In Reducing Virus Incidence In Potatoes," Potato Res 33, 138-139 (1990)
	I. Bar-Zakay, M. Gokkes, Y. Oren, "Chemical Control of Aphids on Citrus Bearing Trees," Phytoparasitica 15, 343 (1987)
	S. Marco, "Reducing the Incidence of Aphid-Transmitted Viruses by Reflective Materials," Phytoparasitica 13, 279-280 (1985)
	DJ Gumpf, GN Oldfield, RK Yokomi, "Progress In the Control of Citrus Stubborn Disease," Proc Int. Soc. Citric, 457-458 (1981)
	JGM Vos, TS Uhan, B. Sutarya, "Integrated Crop Management of Hot Peppers," Crop Prot. 14, 445-452 (1995)
	CG Summers, JJ Stapleton, AS Duncan, DA Hart, "Comparison of Sprayable and Film Mulches In Delaying the Onset of Aphid-Transmitted Virus Diseases In Zucchini Squash," Plant Dis (1995) 79, 1126-1131
	PC Nicot, M. Mermier, BE Valssiere, J. Lagler, "Differential Spore Production by Botrytis Cinerea on Agar Medium and Plant Tissue Under Near-Ultraviolet Light-Absorbing Polyethylene Film," Plant Dis (1996) 80, 555-558
	JJ Stapleton, WK Asai, JE DeVay, "Use of Polymer Mulches In Integrated Pest Management Programs for Establishment of Perennial Fruit Crops," (1989) Acta Hort. 255, 161-168
	RE Byers, CG Lyons, "Effect of Chemical Deposits from Spraying Adjacent Rows on Efficacy of Peach Bloom Thinners," HortSci (1985) 20, 1076-1078
	RE Byers, KS Yoder, GE Mattus, "Reduction In Russetting of 'Golden Delicious' Apples with 2, 4, 5-TP and Other Compounds," HortScience 18:63-65 (1983)
	RE Byers, DH Carbaugh, CN Presley, "'Stayman' Fruit Cracking as Affected by Surfactants, Plant Growth Regulators, and Other Chemicals," J. Amer. Soc. Hort. Sci. 115:405-411 (1990)

Examiner	Date Considered
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